

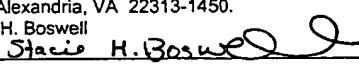
The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:
IPEA/US

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only	
Identification of IPEA	Date of receipt of DEMAND
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION	
International application No. PCT/US05/04421 International filing date (day/month/year) 14 February 2005 (14.02.2005)	
(Earliest) Priority date (day/month/year) 13 February 2004 (13.02.2004)	
Title of invention FUNCTIONAL MATERIALS AND NOVEL METHODS FOR THE FABRICATION OF MICROFLUIDIC DEVICES	
Box No. II APPLICANT(S)	
Name and address: (<i>Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.</i>) THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL 308 Bynum Hall Campus Box 4105 Chapel Hill, NC 27599-4105 UNITED STATES OF AMERICA	Telephone No. 001-919-966-3929 Facsimile No. 001-919-962-0646 Teleprinter No. Applicant's registration No. with the Office
State (that is, country) of nationality: US	State (that is, country) of residence: US
Name and address: (<i>Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.</i>) NORTH CAROLINA STATE UNIVERSITY 2401 Research Drive, Suite 1122 Campus Box 8210 Raleigh, NC 27695-8210 UNITED STATES OF AMERICA	
State (that is, country) of nationality: US	State (that is, country) of residence: US
Name and address: (<i>Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.</i>) DESIMONE, Joseph M. 7315 Crescent Ridge Drive Chapel Hill, NC 27516 UNITED STATES OF AMERICA	"Express Mail" mailing number EV 519135120US Date of Deposit May 8, 2005 I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Stacie H. Boswell 
State (that is, country) of nationality: US	State (that is, country) of residence: US
<input checked="" type="checkbox"/> Further applicants are indicated on a continuation sheet.	

Continuation of Box No. II APPLICANT(S)*If none of the following sub-boxes is used, this sheet should not be included in the demand.**Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

ROLLAND, Jason P.
102 Hollow Oak Drive
Durham, NC 27713
UNITED STATES OF AMERICA

State (that is, country) of nationality: US	State (that is, country) of residence: US
--	--

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

DENISON, Ginger M.
5 Meetinghouse Lane
Durham, NC 27707
UNITED STATES OF AMERICA

State (that is, country) of nationality: US	State (that is, country) of residence: US
--	--

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

State (that is, country) of nationality:	State (that is, country) of residence:
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Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

State (that is, country) of nationality:	State (that is, country) of residence:
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Further applicants are indicated on another continuation sheet.

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The following person is agent common representative

and has been appointed earlier and represents the applicant(s) also for international preliminary examination.

is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.

is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: (*Family name followed by given name; for a legal entity, full official designation.
The address must include postal code and name of country.*)

TAYLOR, JR., Arles A.
Jenkins, Wilson & Taylor, P.A.
University Tower, Suite 1400
3100 Tower Boulevard
Durham, NC 27707
UNITED STATES OF AMERICA

Telephone No.

001-919-493-8000

Facsimile No.

001-919-419-0383

Teleprinter No.

Agent's registration No. with the Office
39,395

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

the international application as originally filed
the description as originally filed
 as amended under Article 34

the claims as originally filed
 as amended under Article 19 (together with any accompanying statement)
 as amended under Article 34

the drawings as originally filed
 as amended under Article 34

2. The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.
3. The applicant wishes the start of the international preliminary examination to be postponed until the expiration of the applicable time limit under Rule 69.1(d).
4. The applicant expressly wishes the international preliminary examination to start earlier than at the expiration of the applicable time limit under Rule 54bis. 1(a).

- * Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English

- which is the language in which the international application was filed.
 which is the language of a translation furnished for the purposes of international search.
 which is the language of publication of the international application.
 which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

Box No. V ELECTION OF STATES

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

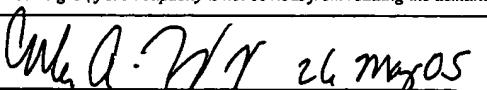
- | | | | |
|--|---|-----------|--|
| 1. translation of international application | : | sheets | For international Preliminary Examining Authority use only |
| 2. amendments under Article 34 | : | 22 sheets | received not received |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | sheets | <input type="checkbox"/> <input type="checkbox"/> |
| 4. copy (or, where required, translation) of statement under Article 19 | : | sheets | <input type="checkbox"/> <input type="checkbox"/> |
| 5. letter | : | sheets | <input type="checkbox"/> <input type="checkbox"/> |
| 6. other (specify) | : | sheets | <input type="checkbox"/> <input type="checkbox"/> |

The demand is also accompanied by the item(s) marked below:

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 5. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> original separate power of attorney | 6. <input type="checkbox"/> sequence listings in computer readable form |
| 3. <input type="checkbox"/> original general power of attorney | 7. <input type="checkbox"/> tables in computer readable form related to sequence listings |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 8. <input type="checkbox"/> other (specify): |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).



Arles A. Taylor, Jr., Attorney for Applicants

— For International Preliminary Examining Authority use only —

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.
 The applicant has been informed accordingly.
4. The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.
5. Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

6. The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply.
7. The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5.
8. Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rule 82.

— For International Bureau use only —

Demand received from IPEA on:

PCT

FEE CALCULATION SHEET

Annex to the Demand

International
application No. PCT/US05/04421

For International Preliminary Examining Authority use only

Applicant's or agent's
file reference 421/96 PCT

Date stamp of the IPEA

Applicant
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, et al.

CALCULATION OF PRESCRIBED FEES

1. Preliminary examination fee

600.00

P

2. Handling fee (*Applicants from certain States are entitled to a reduction of 75% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.*)

173.00

H

3. Total of prescribed fees
Add the amounts entered at P and H
and enter total in the TOTAL box

USD 773.00

TOTAL

MODE OF PAYMENT

- authorization to charge deposit account with the IPEA (see below)
- cheque
- postal money order
- bank draft

- cash
- revenue stamps
- coupons
- other (*specify*): _____

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

(*This mode of payment may not be available at all IPEAs*)

Authorization to charge the total fees indicated above.

IPEA/ _____ US _____

Deposit Account No.: 50-0426

(*This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit*) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.

Date: 26 May 2005

Name: Arles A. Taylor, Jr.

Signature: 